

REGULATIONS – WETLANDS PROTECTION

Section 1 - Introduction and Purpose.....	1
Section 2 - Jurisdiction.....	2
Section 3 - Burden of going forward and burden of proof	2
Section 4 - Definitions	2
Section 5 - Time Periods.....	8
Section 6 - Actions by Conservation Commission	8
Section 7 - Determination of Applicability.....	8
Section 8 - Notice of Intent/Application for permit.....	9
Section 9 - Public Hearings.....	10
Section 10 - Issuance of permit.....	11
Section 11 - Extension of Permit	12
Section 12 - Certificate of Compliance.....	12
Section 13 - Severability; Compliance with Court Decisions	13
Section 14 - Effective Date	13
Section 15 - Banks	13
Section 16 - Vegetated Wetlands (wet meadows, marshes, swamps, and bogs).....	15
Section 17 - Land Under Water Bodies (under any stream, pond or lake).....	19
Section 18 - Land Subject to Flooding (bordering and isolated).....	20
Section 19 - Vegetation Removal and Replacement.....	23
Section 20 - Vernal Pool and 100-Foot No-Disturbance Zone.....	25
Section 21 - Riverfront Area.....	27
Section 22 - Areas of Critical Environmental Concern	27
Section 23 - Stormwater Management.....	28
Section 24 - Filing Fees	28
Section 25 - Plan Requirements.....	28
Section 26 - Area to be staked prior to site inspection	30

Section 1 - Introduction and Purpose

A. Introduction. These regulations are promulgated by the Town of Arlington Conservation Commission pursuant to the authority granted to it under the Town of Arlington Wetlands Protection Bylaw (hereinafter referred to as the "Bylaw"). These regulations complement and implement the Bylaw and shall have the force of law upon their effective date.

B. Purpose. The Bylaw sets forth a public review and decision making process by which activities affecting areas subject to protection under the Bylaw are to be regulated in order to ensure the protection of the following interests: public or private water supply, ground water supply, flood control, erosion control and sedimentation control, storm damage prevention, other water damage prevention, prevention of pollution, protection of surrounding land and other homes or buildings, wildlife protection, plant or wildlife habitat, aquatic species and their habitats, and the natural character or recreational values of the wetland resources. The purposes of these regulations are to define and clarify that process by establishing standard definitions and

uniform procedures by which the Arlington Conservation Commission shall carry out its responsibilities under the Bylaw.

Section 2 - Jurisdiction

- A. Areas subject to protection under the Bylaw:
- (1) Any marsh, freshwater wetland, vernal pool, wet meadow, bog, or swamp.
 - (2) Any river, stream, creek, pond, reservoir, or lake.
 - (3) Any bank of the areas set forth in A(1) or A(2) above.
 - (4) Any land under the areas set forth in A(2) above said waters.
 - (5) Any land bordering the areas set forth in A(1) or A(2) or A(3) above.
 - (6) Any riverfront area as hereinafter defined.
 - (7) Any land subject to flooding or inundation.
- B. Activities subject to regulation under the Bylaw:
- (1) Any activity proposed or undertaken which constitutes removing, filling, dredging, discharging into, building upon, degrading or otherwise altering any area specified in Subsection A of this Section is subject to regulation under the Bylaw and requires the filing of an application for permit.
 - (2) Any activity proposed or undertaken outside the areas specified in subsection A above shall not be subject to regulation under the Bylaw unless, in the judgment of the Conservation Commission, said activity may result or has resulted in the removing, filling, dredging, discharging into, building upon, degrading or otherwise altering an area specified in Subsection A above. If anyone wishes to have the Conservation Commission determine whether an activity may be subject to regulation under the Bylaw, he or she shall submit a request for determination for applicability pursuant to Section 7(A) of these regulations.

Section 3 - Burden of going forward and burden of proof

- A. The applicant shall have the burden of going forward with credible evidence from a competent source in support of all matters asserted pursuant to Subsection B below by the applicant in accordance with his or her burden of proof.
- B. The applicant shall have the burden of proving by a preponderance of the credible evidence from a competent source that the work in the application will not have unacceptable significant or cumulative effect upon the wetland values protected by the Bylaw. Failure to meet the burden of proof shall be cause for the Conservation Commission to deny the application for permit along with any work or activity proposed therein.

Section 4 - Definitions

- A. Except as otherwise provided in the Bylaw or these regulations, the definitions of terms in the Bylaw shall be as set forth in the Wetlands Protection Act. M.G.L. c. 131, Section 40, and its regulations, 310 CMR 10.00.

B. As used in these regulations, the following terms shall have the meanings indicated:

- (1) **ABUTTER** - shall mean the owner of any land within 100 feet of the property line of the land where the activity is proposed, as determined by the most recent assessors' records including any land located directly across a street, river, stream or pond.
- (2) **ACTIVITY** – On or in any area subject to protection by the Bylaw and its regulations: any form of draining, dumping, dredging, damming, discharging, excavating, filling or grading, the erection, reconstruction or expansion of any buildings or structures; the driving of pilings; the construction or improvement of roads and other ways; the changing of runoff characteristics; the intercepting or diverging of groundwater or surface water; the installation of drainage, sewage and water systems; the discharging of pollutants; the destruction of plant life; the cutting or removal of 20% or more of the growth or limbs of trees or vegetation; and any other changing of the physical characteristics of land or the physical or chemical characteristics of water.
- (3) **ALTER** - shall mean to change the condition(s) of any area subject to protection by this Bylaw and shall include but not be limited to one or more of the following actions upon the resource areas protected by this Bylaw: fill, removal, excavation or dredging of soil, sand, gravel or aggregate material of any kind;
 - (a) changing of pre-existing drainage characteristics, flushing characteristics, salinity distribution, sedimentation patterns, flow patterns or flood storage retention areas;
 - (b) draining, disturbing or lowering of the water level or water table; the dumping, discharging or filling with any material which could degrade the water quality;
 - (c) driving of pilings, erection of buildings or structures of any kind;
 - (d) placing of any object or obstruction whether or not it interferes with the flow of water;
 - (e) destruction, extensive trimming (defined as 20% or more of limbs or growth), or removal of plant life, vegetation, or trees;
 - (f) changing of water temperature, biochemical oxygen demand, nutrient concentration or chemical concentration and other natural characteristics of the receiving water;
 - (g) any activities, changes or work which pollutes any stream or body of water, whether located in or out of the Town of Arlington;
 - (h) application of pesticides and herbicides; or
 - (i) any activity, change or work which adversely effects groundwater or drinking water supply.
- (4) **APPLICANT** - shall mean a person filing a Request for Determination of Applicability or Notice of Intent or other application with the Commission.
- (5) **AREA OF CRITICAL ENVIRONMENTAL CONCERN** - An area so designated by the Secretary of Environmental Affairs of the Commonwealth of Massachusetts pursuant to regulations (301 CMR 12.00), said designation being due to the particular environmental factors which impact upon the areas in question and which highlight the importance of each area so designated.
- (6) **AREA SUBJECT TO PROTECTION UNDER THE BYLAW** - Any area specified in Section 2(A). It is used synonymously with "resource area," each of which is defined in greater detail in these regulations.

- (7) **BANK** - shall be defined as the portion of the land surface which normally abuts and confines a water body, often between the mean annual low flow level and the first observable break in the slope or the mean annual flood level, whichever is lower;
- (8) **BEST AVAILABLE MEASURES** - The most up-to-date technology or the best designs, measures or engineering practices that have been developed and that are commercially or readily available.
- (9) **BEST MANAGEMENT PRACTICES** - Technologies, designs, measures or engineering practices that are in general use to protect the resource area values of the Bylaw.
- (10) **BORDERING** shall be defined to include any land within either of the following or the greater thereof:
 - (a) 100 feet horizontally lateral from the edge of any marsh, freshwater wetland, vernal pool, wet meadow, bog, swamp, river, stream, creek, pond, reservoir, or lake; or
 - (b) within the maximum lateral extent of the water elevation of the statistical 100 year frequency storm.
- (11) **BOUNDARY** - The boundary of an area subject to protection under the Bylaw. A description of the boundary of each area is found in the appropriate section of these regulations or in the Bylaw.
- (12) **BYLAW** – Article 8 of Title V of the Bylaws of the Town of Arlington, Massachusetts, entitled “Wetlands Protection”.
- (13) **CERTIFICATE OF COMPLIANCE** - A written determination by the Conservation Commission as to whether work or a portion thereof has been completed in accordance with the permit issued under the Bylaw governing said work.
- (14) **CONDITIONS** - Those requirements set forth in a written permit issued by a Conservation Commission for the purpose of permitting, regulating or prohibiting any activity that removes, fills, dredges or alters an area subject to protection under the Bylaw.
- (15) **CONSERVATION COMMISSION** - That body in Arlington comprised of members lawfully appointed pursuant to M.G.L. c. 40, Section 8C.
- (16) **CREEK** - The same as "stream."
- (17) **CUMULATIVE EFFECT** - shall mean an effect that is significant when considered in combination with other activities that have occurred, are going on simultaneously, or that are likely to occur, whether such other activities have occurred or are contemplated as a separate phase of the same project, such as the build-out of a subdivision or an industrial park, or unrelated but reasonably foreseeable actions, including other development projects that are currently under construction, under review or that may be expected to come forward.
- (18) **DATE OF ISSUANCE** - The date a permit is mailed, as evidenced by a postmark, or the date it is hand-delivered.
- (19) **DATE OF RECEIPT** - The date of delivery to an office, home or usual place of business by mail or hand delivery.
- (20) **DETERMINATION**:
 - (a) **DETERMINATION OF APPLICABILITY** - A written finding by the Conservation Commission as to whether a site or the work proposed thereon is subject to the jurisdiction of the Bylaw.

- (b) DETERMINATION OF SIGNIFICANCE - A written finding by the Conservation Commission, after a public hearing, that the area on which the proposed work is to be done or which the proposed work will alter is significant to one or more of the interests identified in the Bylaw.
- (c) NOTIFICATION OF NONSIGNIFICANCE - A written finding by the Conservation Commission, after a public hearing, that the area on which proposed work is to be done, or which the proposed work will alter, is not significant to any of the interests of the Bylaw.
- (21) DREDGE - To deepen, widen or excavate, either temporarily or permanently.
- (22) EXTENSION PERMIT - A written extension of time within which the authorized work shall be completed.
- (23) FILL - To deposit any material so as to raise the elevation of land surface or ground, either temporarily or permanently.
- (24) FLOOD CONTROL - The prevention or reduction of flooding and flood damage.
- (25) GROUNDWATER - shall mean all subsurface water contained in natural geologic formations or artificial fill including soil water in the zone of aeration. Activities within 100 feet of resource areas shall not significantly alter the existing quality or elevation of naturally occurring groundwater.
- (26) INTERESTS IDENTIFIED IN THE BYLAW - Those interests specified in Section 1 of the Bylaw and Section 1(B) of these regulations.
- (27) ISSUING AUTHORITY - The Conservation Commission.
- (28) LAND SUBJECT TO FLOODING OR INUNDATION shall mean the land within the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm; said boundary shall be that determined by reference to the most recently available flood profile data prepared for Arlington within which the work is proposed under the National Flood Insurance Program ("NFIP"). Where NFIP data are unavailable or deemed by the Commission to be outdated or inaccurate or not reflecting current conditions, the boundary of said land shall be based on the maximum lateral extent of flood water which has been observed or recorded, or other evidence presented and considered by the Commission. Said land shall also include isolated areas which frequently or seasonably hold standing water; such areas may or may not be characterized by wetland vegetation or soil characteristics.
- (29) LAKE - Any open body of fresh water with a surface area of 10 acres or more, and shall include great ponds.
- (30) LAND SUBJECT TO FLOODING - Defined in Section 19.
- (31) LAND UNDER WATER BODIES AND WATERWAYS - The bottom of or land under the surface of a creek, river, stream, pond or lake. Land under water bodies is further defined in Section 18.
- (32) MAJORITY - More than half of the members of the Conservation Commission then in office.
- (33) MARSH, FRESHWATER WETLAND, SWAMP, WET MEADOW, BOG - Defined in Section 17.
- (34) MEADOW (or WET MEADOW) - Defined in Section 17.
- (35) NOTICE OF INTENT - The written notice filed by any person intending to remove, fill, dredge or alter an area subject to protection under the Massachusetts Wetlands Protection Act, M.G.L. c. 131, Section 40, or the Bylaw, or both.

- (36) ORDER - An order of conditions, superseding order or final order, whichever is applicable, issued pursuant to M.G.L. c. 131, Section 40 or the Bylaw, or both.
- (37) OWNER OF LAND ABUTTING THE ACTIVITY - The owner of land sharing a common boundary or corner with the site of the proposed activity in any direction, including land located directly across a street, way, creek, river, stream, brook or canal.
- (38) PERMIT - shall mean the document issued by the Conservation Commission pursuant to this Bylaw which allows work in accordance with conditions set by the Commission in the resource areas protected by this Bylaw.
- (39) PERMIT DENIAL – shall mean the document issued by the Conservation Commission pursuant to the Bylaw which disallows proposed work.
- (40) PERSON - shall include any individual, group of individuals, associations, partnerships, corporations, business organizations, trust, estate, Commonwealth of Massachusetts when subject to town Bylaws, any public or quasi-public corporation or body when subject to town Bylaws or any other legal entity, including the Town of Arlington or its legal representative, agents or assigns.
- (41) PERSON AGGRIEVED - Any person who, because of an act of failure to act by the Conservation Commission, may suffer an injury in fact which is different either in kind or magnitude from that suffered by the general public and which is within the scope of the interests identified in the Bylaw.
- (42) PLANS - Such data, maps, engineering drawings, calculations, specifications, schedules and other materials, if any, deemed necessary by the Conservation Commission to describe the site and/or work to determine the applicability of the Bylaw or to determine the impact of the proposed work upon the interests identified in the Bylaw (See Section 25).
- (43) POND - Any open body of fresh water, either naturally occurring or man-made by impoundment or excavation, which is never without standing water due to natural causes, except in periods of extended drought. For purposes of this definition, extended drought shall mean any period of four or more months during which the average rainfall for each month is 50% or less of the ten-year average for that same month. Basins or lagoons which are part of wastewater treatment plants, swimming pools or other impervious man-made retention basins shall not be considered ponds.
- (44) PREVENTION OF POLLUTION - The prevention or reduction of chemicals (e.g., nutrients, hydrocarbons, solvents, metals, vapors) known or suspected of causing harm to humans, plants, or animals via exposure to any media (air, water, soil, sediment)
- (45) PRIVATE WATER SUPPLY - Any source or volume of surface or groundwater demonstrated to be in any private use or shown to have potential for private use for domestic purposes.
- (46) PROTECTION OF FISHERIES - Protection of the capacity of an area subject to protection under the Bylaw to prevent or reduce contamination or damage to fish and to serve as their habitat and nutrient source.
- (47) PROTECTION OF WILDLIFE - The protection of any plant or animal species, including but not limited to those listed as endangered, threatened or special concern, or on the Watch List by the Massachusetts Natural Heritage Program; listed as Federally Endangered or Federally Threatened by the U.S. Fish and Wildlife Service; deemed locally threatened, in writing, by the Conservation Commission; and means protection of

the ability of any resource area to provide food, breeding habitat, shelter or escape cover and species falling within the definition of wildlife set forth in these regulations.

- (48) **PUBLIC WATER SUPPLY** - Any source or volume of surface water or groundwater demonstrated to be in public use or approved for water supply pursuant to M.G.L. c. 111, Section 160 by the Division of Water Supply of the Department of Environmental Protection or shown to have a potential for public use.
- (49) **QUORUM** – refers the number of Commissioners who must be present before business may be transacted; here, it shall mean a majority of the number of Commissioners then in office.
- (50) **REMOVE** - To take away any type of material, thereby changing the elevation of land surface or ground, either temporarily or permanently.
- (51) **REQUEST FOR DETERMINATION OF APPLICABILITY** - A written request made by any person to the Conservation Commission for a determination as to whether a site or work thereon is subject to the Bylaw.
- (52) **RESOURCE AREA** - Is used synonymously with "area subject to protection under the Bylaw," each one of which is listed in the Bylaw and in Section 2 of these regulations.
- (53) **RIVER** - shall mean any natural flowing body of water that empties to any ocean, lake, pond, reservoir, stream, or other river.
- (54) **RIVERFRONT AREA** - shall mean the area of land between a river's mean annual high water line and a parallel line measured 200 feet horizontally landward of the mean annual high water line.
- (55) **SIGNIFICANT** – shall mean plays a discernable role; e.g., a resource area is significant to an interest identified in the Act when it plays a role in the provisions or protection, as appropriate, of that interest.
- (56) **SMALL PROJECT** – shall mean any project of 100 square feet or less of impervious surface, including but not limited to: decks, structures, pools, patios, or foundation enclosing 100 square feet or less.
- (57) **STORM DAMAGE PREVENTION** - The prevention of damage caused by water from storms, including but not limited to erosion and sedimentation, damage to vegetation, property or buildings or damage caused by flooding, waterborne debris or waterborne ice.
- (58) **STREAM** - A body of running water, including brooks and creeks, which moves in a definite channel in the ground due to hydraulic gradient. A portion of a stream may flow through a culvert or beneath a bridge. Such a body of running water which does not flow throughout the year (i.e., which is intermittent) is a stream.
- (59) **VEGETATED WETLANDS** - Defined in Section 17.
- (60) **WILDLIFE** - Any non-domesticated mammal, bird, reptile, amphibian, fish, mollusk, arthropod or other invertebrate other than a species of the Class insects which has been determined by the Commonwealth of Massachusetts or any agency thereof to be a pest whose protection under the provisions of the Bylaw would be a risk to man.
- (61) **WILDLIFE HABITAT** - shall mean the area necessary to provide breeding or nesting habitat, shelter, food and water for any animal species.
- (62) **WORK** – shall mean the same as "activity."

Section 5 - Time Periods

All time periods of 10 days or less specified in the Bylaw and these regulations shall be computed using business days only. In the case of a determination or order, such period shall commence on the first day after the date of issuance and shall end at the close of business on the 10th business day thereafter. All other time periods specified in the Bylaw and regulations shall be computed on the basis of calendar days, unless the last day falls on a Saturday, Sunday or legal holiday, in which case the last day shall be the next business day following.

Section 6 - Actions by Conservation Commission

A. Where the Bylaw states that a particular action (except receipt of a request or notice) is to be taken by the Conservation Commission, that action is to be taken by more than half the members present at a meeting of at least a quorum. A quorum is defined as a majority of the members then in office.

B. Where the Bylaw states that a determination, permit, or notification or certificate of compliance shall be signed and issued by the Conservation Commission, that action is to be taken by the majority of the quorum present at a public meeting or hearing, or by a majority of the members then in office who need not convene as a body in order to sign said permit or notification, provided that the Commission met pursuant to the Open Meeting Law, M.G.L. c. 39, Sections 23A through 23C, when voting on the matter.

C. Where the Bylaw states that the Conservation Commission is to receive a request or notice, Conservation Commission means a member of the Conservation Commission or an individual designated by the Conservation Commission to receive such request or notice.

Section 7 - Determination of Applicability

A. Requests for determination of applicability.

- (1) Any person who desires a determination as to whether the Bylaw applies to land, or to work that may affect an area subject to protection under the Bylaw, may submit to the Conservation Commission by certified mail, regular mail, or hand delivery a written request for a determination of applicability and other application materials in accordance with the submittal requirements set forth in the filing guidelines for requests for determination of applicability provided in these regulations.
- (2) Said request shall include sufficient information to enable the Conservation Commission to find and view the area and determine whether the proposed work will alter an area subject to protection under the Bylaw.
- (3) A request for determination of applicability shall include certification that the owner of the area subject to the request, if the person making the request is not the owner, has been notified in writing via certified mail, return-receipt requested that a determination is being requested under the Bylaw.

B. Determination of applicability.

- (1) Within 21 days after the date of receipt of the request for a determination of applicability, the Conservation Commission shall hold a public hearing on the request for a determination of applicability. Notice of the time and place of the public meeting at which the determination will be made shall be given by the Conservation Commission at the expense of the person making the request not less than five business days prior to such meeting, by publication in a newspaper of general circulation in the Town of Arlington, and by mailing a notice to the person making the request, the property owner if not the applicant. The Commission will forward the notice of this hearing to the Town Manager, Board of Selectmen, Town Clerk, Planning Department, Town Counsel, Department of Public Works, Town Engineer, Zoning Board of Appeals, Board of Health, Building Inspector, Redevelopment Board. Notice shall also be given in accordance with the Open Meeting Law, M.G.L. c. 39, Section 23B,.
Said determination shall be signed and issued by the Conservation Commission, and copies thereof shall be sent by the Conservation Commission to the person making the request and to the owner within 21 days of the close of the public hearing or any continuances thereof. Said determination shall be valid for three years from date of issuance and may not be extended or renewed.
- (2) The Conservation Commission shall find that the Bylaw applies to the land, or a portion thereof, if it is an area subject to protection under the Bylaw as defined in Section 2(A) above. The Conservation Commission shall find that the Bylaw applies to the work on the portion thereof, if it is an activity subject to the regulations under the Bylaw as defined in Section 2(B) above.
- (3) An application for permit shall be filed in the event of a positive determination, and all of the procedures set forth in Section 8 shall apply.

Section 8 - Notice of Intent/Application for permit

A. Any person who proposes to do work or activity that will remove, fill, dredge or otherwise alter any area subject to protection under the Bylaw shall submit an application, called a Notice of Intent, for a permit on forms specified by the Conservation Commission and in conformance with the plan requirements in Section 25.

B. Upon receipt of the application materials referred to in Subsection A above, the Conservation Commission shall assign a file number, which file number shall be that issued by the Department of Environmental Protection ("DEP") for a Notice of Intent also submitted under the Wetlands Protection Act. The DEP will notify the applicant of the file number. The designation of file number shall not imply that the plans and supporting documents have been judged adequate for the issuance of a permit. For a Notice of Intent not also filed under the Wetlands Protection Act, the Commission shall issue a file number.

C. If only a portion of a proposed project or activity lies within an area subject to protection under the Bylaw and the remainder of the project or activity lies outside those areas, all aspects of the project must be described in the detail, provided also that in such circumstances the Notice of Intent shall also contain a description and calculation of peak flow and estimated water quality

characteristics of discharge from a point source (both closed and open channel), when the point of discharge falls within an area subject to protection under the Bylaw.

D. A public hearing shall be held by the Conservation Commission with 21 days of receipt of the complete Notice of Intent.

E. An Abbreviated Notice of Resource Area Delineation may be filed to confirm the delineated boundary of Vegetated Wetland or other Area Subject To Protection Under the Bylaw on the site. If utilized, an applicant must file an Abbreviated Notice of Resource Area Delineation prior to filing a Notice of Intent. The procedures for a Notice of Intent shall be used for an Abbreviated Notice of Resource Area Delineation. Consistent with Section 6 of the Bylaw, "Applicant's Obligation", the applicant shall have the burden of proving by a preponderance of the credible evidence from a competent source that the delineation of Vegetated Wetland or other Area Subject To Protection Under the Bylaw is accurate.

Section 9 - Public Hearings

A. A public hearing shall be held by the Conservation Commission with 21 days of receipt of the complete Notice of Intent, and shall be advertised by the Commission at the applicant's expense in accordance with the Bylaw (Section 5) and the requirements of the Open Meeting Law, M.G.L. c. 39, Section 23B. Abutter notification, if required, shall be done by and at the expense of the applicant.

B. Continued hearings.

(1) Public hearings may be continued as follows:

- (a) Without the consent of the applicant to a certain date announced at the hearing should the applicant or the applicant or the applicant's representative fail to provide eight (8) copies of any written information or documents intended for discussion at a meeting/hearing less than ten (10) days prior to that scheduled meeting/hearing to the Commission office or Agent, or fail to deliver one copy to the home of each Commissioner and the Commission Office or Agent seven (7) days prior to said meeting/hearing.
- (b) Without the consent of the applicant to a certain date announced at the hearing either for receipt of additional information offered by the applicant or others or for information required of the applicant deemed necessary by the Conservation Commission at its discretion; or
- (c) With the consent of the applicant, to an agreed-upon date, which shall be announced at the hearing.
- (d) For lack of receipt of the DEP file number, to certain date announced at the hearing; or
- (e) For failure to pay the consultant fee pursuant to Section 16 of the Bylaw, to a certain date announced at the hearing.

(2) The date, time and place of any such continued hearing shall be publicized in accordance with the Open Meeting Law, and notice shall be sent by the applicant to any person at the hearing who so requests.

Section 10 - Issuance of permit

A. Within 21 days of the close of the public hearing or any continuance thereof on an application/Notice of Intent for a permit, the Conservation Commission shall:

- (1) Make a determination that the area on which the work is proposed to be done, or on which the proposed work will remove, fill, dredge, discharge into, build upon, degrade or otherwise alter, is not significant to any of the interests identified in the Bylaw, and shall so notify the applicant;
- (2) Make a determination that the area on which the work is proposed to be done, or on which the proposed work will remove, fill, dredge or alter, is significant to one or more of the interests identified in the Bylaw and issue a permit for the protection of said interests;
- (3) Make a determination that the proposed work fails to meet the design specifications, performance standards, or other requirements of the Bylaw, its regulations, or policies of the Commission, or that the project fails to avoid or prevent unacceptable significant or cumulative effects upon the resource area values of the Bylaw, or that there are no conditions adequate to protect said values; or
- (4) If the Conservation Commission finds that the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Bylaw, it may issue a permit prohibiting the work. The permit shall specify the information which is lacking and why such information is necessary.

B. A permit allowing the proposed work shall impose such conditions, in the judgment of the Conservation Commission, that are necessary for the protection of those areas found to be significant to one or more of the interests identified in the Bylaw. Said permit shall prohibit any work or any portion thereof that cannot be conditioned to meet said standards. The permit shall impose conditions setting limits on the quantity and quality of discharge from a point source (both open and closed channel) when said limits are necessary to protect the interests identified in the Bylaw.

C. The permit shall be valid for three years from the date of its issuance.

D. The permit shall be signed and issued by the Conservation Commission and shall be mailed or hand-delivered to the applicant, his or her agent or attorney.

E. A copy of the plans describing the work and the permit shall be kept on file by the Conservation Commission and shall be available to the public at reasonable hours.

F. Prior to the commencement of any work permitted or required by the permit, the permit shall be recorded in the Registry of Deeds or the Land Court. In the case of recorded land, the permit shall also be noted in the Registry's Grantor Index under the name of the owner of land upon which the proposed work is to be done. In the case of registered land, the permit shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is to be done. Certification of recording shall be sent to the Conservation Commission within two weeks of recording. If work is undertaken without the applicant first recording the

permit, the Conservation Commission may issue an enforcement order or may itself record the permit.

Section 11 - Extension of Permit

A. The Conservation Commission may extend a permit for a period of up to an additional three-year period from date of issuance. The request for an extension shall be made to the Conservation Commission at least 30 days prior to the expiration of the permit. The Commission shall hold a public hearing in accordance with the Bylaw and these regulations within 30 days of receipt of said request. Should said public hearing be continued past the date of the expiration of the permit, the expiration date shall be stayed to the date on which the Commission votes on whether to extend the permit, should the Commission vote not to grant the request for permit extension.

B. The Conservation Commission may deny the request for an extension and require the filing of a new application for permit for the remaining work in the following circumstances:

- (1) Where no work has begun on the project, except where such failure is due to an unavoidable delay, such as appeals and in the obtaining of other necessary permits;
- (2) Where new information, not available at the time the permit was issued, has become available and indicates that the permit is not adequate to protect the resource area values identified in the Bylaw;
- (3) Where incomplete work is causing damage to the resource area values identified in the Bylaw; or
- (4) Where work has been done in violation of the permit or the Bylaw or these regulations.

C. If issued by the Conservation Commission, the extension permit shall be signed by a majority of the quorum of the members of the Conservation Commission present.

D. The extension permit shall be recorded in the Land Court or the Registry of Deeds, whichever is appropriate. If work is undertaken without the applicant recording the extension permit, the Conservation Commission may issue an enforcement order or may itself record the extension permit.

Section 12 - Certificate of Compliance

A. Upon written request by the applicant, a certificate of compliance shall be issued by the Conservation Commission within 21 days of receipt thereof, and shall certify if it so determines, that the activity or portions thereof described in the application for permit and plans has been completed in compliance with the permit. If approved by the Conservation Commission, the certificate of compliance shall be signed and issued by the Commission.

B. Prior to the issuance of a certificate of compliance, a site inspection shall be made by the Conservation Commission or its agent, in the presence of the applicant or the applicant's agent.

C. If the Conservation Commission determines, after review and inspection, that the work has not been done in compliance with the permit, it shall refuse to issue a certificate of compliance.

Such refusal shall be issued within 21 days of receipt of a request for a certificate of compliance, shall be in writing and shall specify the reasons for denial.

D. If a project has been completed in accordance with plans stamped by a registered professional engineer or a land surveyor, a written statement by such a professional person certifying substantial compliance with the plans and setting forth what deviation, if any, exists from the plans approved in the permit shall accompany the request for a certificate of compliance. The Commission reserves the right to administer the requirements of this paragraph in its sole discretion commensurate with the nature, scope, type, and cost of the proposed project or activity.

E. If the permit contains conditions which continue past the completion of the work, such as maintenance or monitoring, the certificate of compliance shall specify which, if any, of such conditions shall continue. The certificate shall also specify to what portion of the work it applies, if it does not apply to all the work regulated by the permit.

F. The certificate of compliance shall be recorded in the Land Court or Registry of Deeds, whichever is appropriate. Certification of recording shall be sent to the Conservation Commission on the form specified by the Commission. Upon failure of the applicant to so record, the Conservation Commission may do so.

Section 13 - Severability; Compliance with Court Decisions

A. The invalidity of any section or provision of the Bylaw or of these regulations shall not invalidate any other section or provisions thereof, nor shall it invalidate any permit which previously has been issued.

B. If any Court of the Commonwealth shall invalidate any provisions of the Bylaw or of these regulations, the Conservation Commission may promulgate additional rules and regulations or present to the next Town Meeting after such invalidations, amendments to the Bylaw or regulations which are designed to comply with any Court decision invalidating such provisions or regulations, as the case may be.

Section 14 - Effective Date

The effective date of these rules and regulations shall be January 4, 2001, and the provisions of these rules and regulations shall apply to all work performed, and all applications or requests for determination of applicability received on or after that date.

Section 15 - Banks

A. Findings.

- (1) Banks are likely to be significant to wildlife, to plant or wildlife habitat, to public or private water supply, to groundwater supply, to flood control, to storm damage prevention, to the prevention of pollution, to erosion control and sedimentation control, and to the protection of fisheries. Where banks are composed of concrete, asphalt or other

artificial impervious material, said banks are likely to be significant to flood control and storm damage prevention.

- (2) Banks are areas where groundwater discharges to the surface and where, under some circumstances, surface water recharges the groundwater.
- (3) Where banks are partially or totally vegetated, the vegetation serves to maintain their stability, which in turn protects water quality by reducing erosion and siltation. Partially or totally vegetated banks provide habitat for wildlife.
- (4) Banks may also provide shade that moderates water temperatures, as well as providing breeding habitat and escape cover and food, all of which are significant to the protection of fisheries. Banks which drop off quickly or overhang the water's edge often contain numerous undercuts which are favorite hiding spots for important species.
- (5) Banks act to confine floodwater during the most frequent storms, preventing the spread of water to adjacent land. Because banks confine water during such storms to an established channel, they maintain water temperatures and depths necessary for the protection of fisheries. The maintenance of cool water temperatures during warm weather is critical to the survival of many species. An alteration of a bank that permits water to frequently and consistently spread over a larger and more shallow area increases the amount of property which is routinely flooded, as well as elevating water temperatures and reducing fish habitat within the main channel, particularly during warm weather.
- (6) Land bordering or within 100 feet of a bank is likely to be significant to the protection and maintenance of the bank, and therefore to the protection of the interests which these resources serve to protect.

B. Definition, critical characteristics and boundary.

- (1) A bank is the portion of the land surface which normally abuts and confines a water body. It occurs between a water body and a vegetated bordering wetland and adjacent floodplain, or, in the absence of these, it occurs between a water body and an upland. A bank may be partially or totally vegetated, or it may be comprised of exposed soil, gravel or stone.
- (2) The physical characteristics of a bank, as well as its location, as described in the foregoing Subsection B(1), are critical to the protection of the interests specified in Subsection A.
- (3) The upper boundary of a bank is the first observable break in the slope or the mean annual flood level, whichever is higher in elevation. The lower boundary of a bank is the mean annual low flow level or mean low water level.

C. No activity, other than the maintenance of an already existing structure, shall be allowed which will result in the building within or upon, removing, filling, or altering of a bank, or land within 25 feet of any bank unless the Applicant can demonstrate by a preponderance of credible evidence that the resource area values protected by the Bylaw are not significantly or cumulatively effected.

D. Any activity which is allowed under this section on a bank or on land bordering or within 100 feet of a bank shall comply with the following regulations. Any proposed work on a bank or bordering or within 100 feet of a bank shall not impair the following:

- (1) The physical stability of the bank.

- (2) The water-carrying capacity of the existing channel within the bank.
- (3) Groundwater and surface water quality.
- (4) The capacity of the bank to provide breeding habitat, escape cover and food for fisheries.

E. No work shall be performed within 50 feet of an inland bank that abuts an estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species Program unless the Applicant can demonstrate by a preponderance of credible evidence that the work will not have any short term or long term adverse effect on the resource area values protected by the Bylaw.

Section 16 - Vegetated Wetlands (wet meadows, marshes, swamps, and bogs)

A. Findings.

- (1) Vegetated wetlands are likely to be significant to wildlife, to plant or wildlife habitat, to public or private water supply, to groundwater supply, to flood control, to storm damage prevention, to prevention of pollution, and to the protection of fisheries.
- (2) The plant communities, soils and associated low, often flat topography of vegetated wetlands remove or detain sediments, nutrients (such as nitrogen and phosphorous) and toxic substances (such as heavy metal compounds) that occur in runoff and floodwaters.
- (3) Some nutrients and toxic substances are detained for years in plant root systems or in the soils. Others are held by plants during the growing season and released as the plants decay in the fall and winter. This latter phenomenon delays the impacts of nutrients and toxins until the cold weather period, when such impacts are less likely to reduce water quality.
- (4) Vegetated wetlands are areas where groundwater discharges to the surface and where, under some circumstances, surface water discharges to the groundwater.
- (5) The profusion of vegetation and the low, flat topography of vegetated wetlands slow down and reduce the passage of floodwaters during periods of peak flow by providing temporary floodwater storage, and by facilitating water removal through evaporation and transpiration. This reduces downstream flood crests and resulting damage to private and public property. During dry periods the water retained in vegetated wetlands is essential to the maintenance of base flow levels in rivers and streams, which in turn is important to the protection of water quality and water supplies.
- (6) Wetland vegetation provided shade that moderates water temperatures important to fish life. Wetlands flooded by adjacent water bodies and waterways provide food, breeding habitat and cover for fish. Fish populations in the larval stage are particularly dependent upon food provided by overbank flooding which occurs during peak flow periods (extreme storms), because most river and stream channels do not provide quantities of the microscopic plant and animal life required.
- (7) Wetland vegetation supports a wide variety of insects, reptiles, amphibians, mammals and birds which are a source of food for important fish. Bluegills (*Lepomis macrochirus*), pumpkinseeds (*Lepomis gibbosus*), yellow perch (*Perca flavescens*), rock bass (*Ambloplites rupestris*) and all trout species feed upon nonaquatic insects, Largemouth bass (*Micropterus salmoides*), chain pickerel (*Esox niger*) and northern pike (*Esox lucius*) that feed upon small mammals, snakes, nonaquatic insects, birds and amphibians. These wetlands are also important to the protection of rare and endangered wildlife species.

- (8) Vegetated wetlands, together with land bordering or within 100 feet of a vegetated wetland, serve to moderate and alleviate thermal shock and pollution resulting from runoff from impervious surfaces which may be detrimental to wildlife, and fisheries downstream of the vegetated wetlands.
- (9) Land bordering or within 100 feet of a vegetated wetland is likely to be significant to the protection and maintenance of vegetated wetlands, and therefore to the protection of the interests which these resource areas serve to protect.

B. Definition, critical characteristics and boundary.

- (1) Vegetated wetlands are freshwater wetlands. The types of freshwater wetlands include wet meadows, marshes, swamps, bogs . They are areas where the topography is low and flat, and where the soils are annually saturated. The ground- and surface water regime and the vegetational community which occur in each type of freshwater wetland are specified in Subsection B(3)(a) through (d) below.
- (2) The physical characteristics of vegetated wetlands, as described in the foregoing Subsection B(1), are critical to the protection of the interests specified in Subsection A above.
- (3) The boundary of vegetated wetlands is the line within which 50% or more of the vegetational community consists of the wetland plant species identified in Subsection B(3)(a) through (e) below:
 - (a) The term "bogs" as used in this section shall mean areas where standing or slowly running water is near or at the surface during a normal growing season and where a vegetational community has a significant portion of the ground or water surface covered with sphagnum moss (*Sphagnum* spp.) and where the vegetational community is made up of a significant portion of one or more of, but not limited to or necessarily including all of the following plants or groups of plants: aster (*Aster nemoralis*), azaleas (*Rhododendron canadense* and *R. viscosum*), black spruce (*Picea mariana*), bog cotton (*Eriophorum*), cranberry (*Vaccinium macrocarpon*), high-bush blueberry (*Vaccinium corymbosum*), larch (*Larix laricina*), laurels (*Kalmia augustifolia* and *K. polifolia*), leatherleaf (*Chamaedaphne calyculata*), orchids (*Arethusa*, *Calopogon*, *Pogonia*), pitcher plants (*Sarracenia purpurea*), sedges (*Cyperaceae*), sundews (*Droseraceae*), sweet gale (*Myrica gale*) and white cedar (*Chamaecyparis thyoides*).
 - (b) The term "swamps," as used in this section, shall mean areas where groundwater is at or near the surface of the ground for a significant part of the growing season or where runoff water from surface drainage frequently collects above the soil surface, and where a significant part of the vegetational community is made up of, but not limited to nor necessarily including all of the following plants or groups of plants: alders (*Alnus*), ashes (*Fraxinus*), azaleas (*Rhododendron canadense* and *R. viscosum*), black alder (*Ilex Verticillata*), black spruce (*Picea mariana*), button bush (*Cephalanthus occidentalis*), American or white elm (*Ulmus americana*), white Hellebore (*Veratrum viride*), hemlock (*Tsuga canadensis*), highbush blueberry (*Vaccinium corymbosum*), larch (*Larix laricina*), cowslip (*Caltha palustris*), poison sumac (*Toxicodendron vernix*), red maple (*Acer rubrum*), skunk cabbage (*Symplocarpus foetidus*), sphagnum mosses (*Sphagnum*), spicebush (*Lindera benzoin*), black gum tupelo (*Nyssa*

- sylvatica*), sweet pepper bush (*Clethra alnifolia*), white cedar (*Chamaecyparis thyoides*) and willow (*Salicaceae*);
- (c) The term "wet meadow" as used in this section shall mean areas where groundwater is at the surface for a significant part of the growing season and near the surface throughout the year and where a significant part of the vegetational community is composed of various grasses, sedges and rushes, made up of, but not limited to nor necessarily including all of the following plants or groups of plants: blue flag (*Iris*), vervain (*Verbena*), thoroughwort (*Eupatorium*), dock (*Rumex*), false loosestrife (*Ludwigia*), hydrophilic grasses (*Gramineae*), loosestrife (*Lythrum*), marsh fern (*Dryopteris thelypteris*), rushes (*Juncaceae*), edges (*Cyperaceae*), sensitive fern (*Onoclea sensibilis*) and smartweed (*Polygonum*).
- (d) The term "marshes," as used in this section, shall mean areas where a vegetational community exists in standing or running water during the growing season and where a significant part of the vegetational community is composed of, but not limited to nor necessarily including all of the following plants or groups of plants: arums (*Araceae*), bladder worts (*Utricularia*), bur reeds (*Sparganiaceae*), button rush (*Cephalanthus occidentalis*), cattails (*Typha*), duck weeds (*Lemnaceae*), eelgrass (*Vallisneria*), frog bits (*Hydrocharitaceae*), horsetails (*Equisetaceae*), hydrophilic grasses (*Gramineae*), leatherleaf (*Chamaedaphne calyculata*), pickerel woods (*Pontederiaceae*), pipeworts (*Eriocaulon*), pond woods (*Potamogeton*), rushes (*Juncaceae*), sedges (*Cyareceae*), smartweeds (*Polygonum*), sweet gale (*Myrica gale*), water milfoil (*Haloragacaea*), water lilies (*Nymphaeaceae*), water starworts (*Callitrichaceae*) and water willow (*Decodon verticillatus*).

C. No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling or altering of a vegetated wetland, or of land within 25 feet of a vegetated wetland, shall be permitted by the Conservation Commission, unless the Applicant can demonstrate by a preponderance of credible evidence that the resource area values protected by the Bylaw are not significantly or cumulatively effected.

D. No work shall be performed within 50 feet of a vegetated wetland that abuts on an estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species unless the Applicant can demonstrate by a preponderance of credible evidence that the work will not have any short term or long term adverse effect on the resource area values protected by the Bylaw.

E. Wetland Replication

- (1) Introduction - Notwithstanding the foregoing subsections C. and D., the Commission in its sole discretion may allow work in Vegetated Wetland which results in the loss of up to 5,000 square feet of Vegetated Wetland when such area is replaced in a manner to ensure that the replacement area will provide a viable wetland that replaces the functions and values of the area lost. Detailed project design is required to guarantee that wetland impacts are avoided to the maximum extent possible, to minimize absolutely necessary impacts and lastly, to successfully replicate losses that cannot be avoided. The design of replication areas shall carefully consider and incorporate to the extent practicable the Massachusetts Inland Wetland Replication Guidelines (DEP, 2002). Restoration of a

degraded wetland may be accepted by the Commission as satisfying the foregoing replication requirement.

- (2) Required design criteria - Projects involving Wetlands Filling and/or permanent Alterations shall meet the requirements of 310 CMR 10.60(3) and 310 CMR 10.55(4) and the following requirements of the Commission:
- (a) The proposed replication area design must be submitted to the Commission for approval as part of the submittal of the project Notice of Intent.
 - (b) The replication area must be shown to sufficiently duplicate the functions of the wetland proposed to be altered.
 - (c) The area of the wetland replication shall be at a 2:1 ratio to that area of wetland loss. If space is limited and adherence to a 2:1 ratio would result in hardship as determined by the Commission, this ratio may be reduced to as low as 1.5:1.
 - (d) The type of wetland created shall be similar to that lost in terms of physiology and function (e.g., similar plant species, hydrologic regime, and soils) except where an improvement in physiology and function is proposed.
 - (e) The replication area must have similar groundwater and surface elevation as the lost area.
 - (f) The replication area must have a similar location relative to the bank as the lost area when replicating bordering vegetated wetland.
 - (g) The replication area must have an unrestricted surface hydraulic connection to the same waterbody or waterway as the lost area when replicating bordering vegetated wetland.
 - (h) The location of the replication areas must be in the same general area as the lost wetland. The location of replacement wetland areas shall be in the following order of preference:
 - (i) on site,
 - (ii) within the same watershed as the lost area, or
 - (iii) within the Town of Arlington.
 - (j) The replication area shall be constructed prior to alteration of the existing wetland and during the same growing season. When replication involves transplanting plants and materials from existing wetland to the replicated wetland, the replication area shall be constructed, to the extent possible, immediately after alteration of the existing wetland. When transporting, all care shall be taken to prevent the transporting of invasive plants and invasive materials in soils.
 - (k) The proposed replication area must be clearly flagged for Commission site inspection before the Notice of Intent filing.
 - (l) The proposal for a replication area (submitted with the Notice of Intent) shall include a detailed plan of the wetland replication showing:
 - (i) cross-section with indication of groundwater level, soil profile and thickness of organic soil in the existing and proposed wetlands;
 - (ii) plant species detail, including number, type and location of species found in the replication area to be altered, and number, types and locations of species to be introduced into the replacement area;
 - (iii) detail of stabilization plans for replication area of Banks;
 - (iv) Wildlife Habitat diversity plan;
 - (v) any trees over 2" dbh shall be replaced in accordance with Section 20 of these

Regulations, "Vegetation Removal and Replacement".

- (m) If, after three growing seasons, the Commission determines that the replication area has not satisfactorily developed into a wetland replacing the wetland area lost, the applicant or owner may be required to submit new plans to successfully replicate said lost wetland. No Certificate of Compliance shall be issued until the Commission has determined that a satisfactory replication area has been completed at the end of the three-year period.

Section 17 - Land Under Water Bodies (under any stream, pond or lake)

A. Findings.

- (1) Land under water bodies and waterways is likely to be significant to wildlife, to public and private water supply, to groundwater supply, to flood control, to storm damage prevention, to prevention of pollution and to the protection of fisheries.
- (2) Where land under water bodies and waterways is composed of pervious material, such land represents a point of exchange between surface water and groundwater.
- (3) The physical nature of land under water bodies and waterways is highly variable, ranging from deep organic soils and fine sedimentary deposits to rocks and bedrock. The organic soils and sediments play an important role in the process of detaining and removing dissolved and particulate nutrients (such as nitrogen and phosphorous) from the surface water above. They also serve as traps for toxic substances (such as heavy metal compounds).
- (4) Land under water bodies and waterways, in conjunction with banks, serves to confine floodwater within definite channel during the most frequent storms. Filling within this channel blocks flows which in turn causes backwater and overbank flooding during such storms. An alteration of land under water bodies and waterways that causes water to frequently spread out over a larger area at a lower depth increases the amount of property which is routinely flooded. Additionally, such alteration results in an elevation of water temperature and a decrease in habitat in the main channel, both of which are detrimental to fisheries, particularly during periods of warm weather and low flows.
- (5) Land under rivers, streams and creeks that is composed of gravel allows the circulation of cold, well-oxygenated water necessary for the survival of fish species. River, stream and creek bottoms with a diverse structure composed of gravel, large and small boulders and rock outcrops provide escape cover and resting areas for fish species. Such bottom type also provides areas for the production of aquatic insects essential to fisheries.
- (6) Land under ponds and lakes is vital to a large assortment of warm-water fish during spawning periods. Species such as largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), blue gills (*Lepomis macrochirus*) pumpkinseeds (*Lepomis gibbosus*), black crappie (*Promoxis nigromaculatus*) and rock bass (*Ambloplites rupestris*) build nests on the lake and bottom substrates within which they shed and fertilize their eggs.
- (7) Land within 100 feet of any bank abutting land under a water body is likely to be significant to the protection and maintenance of land under a water body, and therefore to the protection of the interests which these water bodies serve to protect.

B. Definition, critical characteristics and boundaries.

- (1) Land under water bodies is the land beneath any creek, river, stream, pond or lake. Said land may be composed of organic muck or peat, fine sediments, rocks or bedrock.
- (2) The physical characteristics and location of land under water bodies and waterways specified in the foregoing Subsection B(1) are critical to the protection of the interests specified in Subsection A above.
- (3) The boundary of land under water bodies is mean low water level.

C. No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, or removing, filling, dredging or altering of land under a water body or within 25 feet of land under a water body shall be permitted by the Conservation Commission unless the Applicant can demonstrate by a preponderance of credible evidence that the resource area values protected by the Bylaw are not significantly or cumulatively effected.

D. Any activity which is allowed under this section on land under a water body or within 100 feet of land under a water body shall comply with the following regulations. Any proposed work upon land under a water body or with 100 feet of land under a water body shall not impair the following:

- (1) The water-carrying capacity within the defined channel, which is provided by said land in conjunction with the banks.
- (2) Ground and surface water quality and quantity.
- (3) The capacity of said land to provide breeding habitat, escape cover or food for fisheries.

E. No work shall be performed within 50 feet of land under water bodies that abuts an estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species Program unless the Applicant can demonstrate by a preponderance of credible evidence that the work will not have any short term or long term adverse effect on the resource area values protected by the Bylaw.

Section 18 - Land Subject to Flooding (bordering and isolated)

A. Findings.

- (1) Bordering land subject to flooding.
 - (a) Bordering land subject to flooding is an area which floods from a rise in a bordering waterway or water body. Such areas are likely to be significant to flood control and storm damage prevention.
 - (b) Bordering land subject to flooding provides a temporary storage area for floodwater which has overtopped the bank of the main channel of a creek, brook, river or stream or the basin of a pond or lake. During periods of peak runoff, floodwaters are both retained (i.e., slowly released through evaporation and percolation) and detained (slowly released through surface discharge) by bordering land subject to flooding. Over time, incremental filling of these areas causes increases in the extent and level of flooding by eliminating flood storage volume or by restricting flows, thereby causing increases in damage to public and private properties and downstream resource areas.

- (c) The hydrologic regime, plant community and structure, topography, soil, and proximity to water bodies or vegetated wetlands provide important food, shelter, migratory, and overwintering areas, and breeding for wildlife.
- (d) The hydrologic regime, surrounding plant community, topography, soil, and proximity to water bodies or vegetated wetlands make bordering land subject to flooding allow vegetation to successfully grow in these areas.
- (2) Isolated land subject to flooding.
 - (a) Isolated land subject to flooding is an isolated depression or a closed basin which serves as a ponding area for runoff or high groundwater which has risen above the ground surface. Such areas are likely to be locally significant to flood control and storm damage prevention. In addition, where such areas are underlain by pervious material they are likely to be significant to public or private water supply and to groundwater supply. Where such areas are underlain by pervious material covered by a mat or organic peat and muck, they are also likely to be significant to the prevention of pollution. Isolated land subject to flooding provides important breeding habitat for amphibians and some rare plants. Isolated land subject to flooding provides a temporary storage area where runoff and high groundwater pond and slowly evaporate or percolate into the substrate. Filling causes lateral displacement of the ponded water onto contiguous properties, which may result in damage to said properties.
 - (b) Isolated land subject to flooding, where it is underlain by pervious material, provides a point of exchange between groundwaters and surface waters. Contaminants introduced into said area, such as road salts, find easy access into the groundwater. Where these conditions occur and a mat of organic peat or muck covers the substrate of the area, said mat serves to detain and remove contaminants which might otherwise enter the groundwater.

B. Definitions, critical characteristics and boundaries.

- (1) Bordering land subject to flooding.
 - (a) Bordering land subject to flooding is an area with low, flat topography adjacent to and inundated by floodwaters rising from brooks, creeks, rivers, streams, pond or lakes. It extends from the banks of these waterways and water bodies; where a bordering vegetated wetland occurs, it extends from said wetland.
 - (b) The topography and location of bordering land subject to flooding specified in the foregoing Subsection B(1)(a) are critical to the protection of the interests specified in subsection A(1) above.
 - (c) The boundary of bordering land subject to flooding is the estimated or observed maximum lateral extent of floodwater which will theoretically result or has resulted from the statistical one-hundred-year-frequency storm.
 - i. Said boundary shall be that determined by reference to the most recently available flood profile data prepared for the Town of Arlington within which the work is proposed under the National Flood Insurance Program (NFIP, currently administered by the Federal Emergency Management agency, successor to the U.S. Department of Housing and Urban Development). Said boundary, so determined, shall be presumed accurate. This presumption may be overcome only

by credible evidence from a registered professional engineer or other professional competent in such matters.

- ii. Notwithstanding the foregoing, where NFIP profile data is unavailable or is determined by the Commission to be outdated, inaccurate or not reflecting current conditions, the boundary of bordering land subject to flooding shall be the maximum lateral extent of floodwater which has been observed or recorded.
- (2) Isolated land subject to flooding.
- (a) Isolated land subject to flooding is an isolated depression or closed basin without an inlet or an outlet. It is an area which at least once a year confines standing water. Isolated land subject to flooding may be underlain by pervious material, which in turn may be covered by a mat of peat or muck.
 - (b) The characteristics specified in the foregoing Subsection B(2)(a) are critical to the protection of the interests specified in Subsection A(2) above.
 - (c) The boundary of isolated land subject to flooding is the perimeter of the largest observed or recorded volume of water confined in said area.

C. No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, or removing, filling, dredging or altering of, land subject to flooding shall be permitted by the Conservation unless the Applicant can demonstrate by a preponderance of credible evidence that the resource area values protected by the Bylaw are not significantly or cumulatively effected.

D. Any activity which is allowed under this section on land subject to flooding shall not result in the following:

- (1) Flood damage due to filling which causes lateral displacement of water that would otherwise be confined within said area;
- (2) Adverse effect on public and private water supply or groundwater supply, where said area is underlain by pervious material;
- (3) An adverse effect on the capacity of said area to prevent pollution of the groundwater, where the area is underlain by pervious material which in turn is covered by a mat of organic peat and muck.

Any such activity shall provide compensatory flood storage for all flood storage volume that will be lost at each elevation. Compensatory flood storage shall be at a 2:1 ratio, minimum, for each unit volume of flood storage lost at each elevation. Compensatory flood storage shall mean a volume not previously used for flood storage, shall have an unrestricted hydraulic connection to the same waterway or water body, and, with respect to waterways, shall be provided within the same reach of the river, stream, or creek. Parking garages or structures in which petroleum, hazardous materials, or pollutants will likely be found may not be used as compensatory storage. The Commission has found that such an approach results in a significant or cumulative effect upon the resource area values protected by the Bylaw, and has found that these facilities can result in the uncontrolled acute or chronic release of these harmful materials into the resource areas protected by the Bylaw. The Commission has also found that using these structures for flood storage can result in the damage of vehicles and property under flooding conditions.

E. No work shall be performed within 50 feet of land subject to flooding that abuts and estimated habitat area as designated on the most current map prepared by the Massachusetts Natural

Heritage and Endangered Species Program unless the Applicant can demonstrate by a preponderance of credible evidence that the work will not have any short term or long term adverse effect on the resource area values protected by the Bylaw.

Section 19 - Vegetation Removal and Replacement**A. Findings.**

Vegetation in a resource area protected by the Bylaw is significant for wildlife, wildlife habitat and water quality. In addition, vegetation controls flood and storm damage. Vegetation provides food, shelter, socialization, shade, water detention, sediment control, bank stabilization, biodiversity, pollutant uptake, evapotranspiration of water, aesthetics, and atmospheric purification. In addition, plant size ordinarily is proportional to habitat value; i.e., large wooded trees are of greatest habitat value, followed by bushes, and then ground cover. Thus, an adequate quantity of vegetation must be maintained so that resource areas protected by the Bylaw can provide the resource area values protected by the Bylaw, including, but not limited to: flood control, storm damage prevention, pollution abatement, wildlife protection, aesthetic value, and recreation.

B. No vegetation in a resource area protected by the Bylaw shall be damaged or removed without in-kind replacement as approved by the Commission.

C. "In-kind replacement" shall refer to a combination of species type and surface area as defined by the area delineated by the drip line of the affected plant(s). "In-kind" means the same type and quantity of plant species that was removed, unless compelling evidence is presented in writing that explains why the resource area values under the Bylaw are promoted through an alternative proposal, and planted within the same resource area or another resource area located in close proximity on the project site.

D. The criteria for removal of vegetation follow. In all instances, the reasons for removal must be expressed in writing before the removal. In administering this standard, the Commission shall consider species selection, location, and timing of the plantings.

- (1) Health of Vegetation - Vegetation in a state of irreversible decay, or undesirable vegetation present as a result of lack of maintenance may be offered as a reason(s) for removal.
- (2) Bank Stabilization - A bank stabilization plan requires the restructuring of soils occupied by vegetation.
- (3) Invasive Species - The vegetation being removed is an aggressive, invasive, or non-native species as confirmed by wetlands scientist or as listed on a wetlands plant list acceptable to the Commission, such as, but not limited to that published by the United States Fish and Wildlife Service.
- (4) Imminent Risk to Public Health - The vegetation is an imminent risk to public health as confirmed in writing by the Arlington Tree Warden, Fire Department Representative, Public Safety Officer, or certified arborist.

E. Application for Removal. For all but small projects, the application for vegetation removal shall be submitted as part of the application for permit or Notice of Intent as described by the Bylaw and these regulations. At a minimum, the application will include:

- (1) Narrative - The narrative shall describe the existing conditions, the proposed planting plan, the list of existing and proposed species, the size of existing and proposed species, and number of plants before and after the revegetation event. The narrative shall also provide the rationale for the removal and discuss the proposed maintenance plan.
- (2) Affirmation of the Revegetation Activities - All plans for revegetation must be accompanied by written testimony and scaled diagram from a certified arborist or wetland scientist or landscape architect. At a minimum, this document must include the following information:
 - a. Is the vegetation removal necessary? (See D. above)
 - b. How much surface area of the vegetation will be removed (ft²-based on drip line)?
 - c. How many individual plants will be removed by species; *i.e.*, is the species list submitted with the NOI correct?
- (3) Planting Plan - The planting plan must be drawn to scale and identify properly the resource area and buffer zone and the project site. It must include the locations of each replacement species. The planting plan and procedures should comply with the American Standards for Nurserymen, Inc. or equivalent. It must also include the location of the erosion control devices used during the restoration event. A brief narrative must accompany this planting plan describing the storage location of all motorized equipment. The following activities may not be conducted in the resource area or buffer zone: changing of oil, refueling, or damage to other vegetation not scheduled for removal.
- (4) Species List - Each species existing before and after the restoration shall be listed in terms of area of coverage (ft²) and number of individual plants. A rationale for the species and size choice must be provided if the replacement is not "in-kind". Native species are the preferred plants of choice. The replacement of a tree shall be equivalent or when it is not possible to replace with the same trunk diameter at breast height (dbh), the following table:

Existing Trunk (dbh)	Replacement Guideline (dbh)
0 – 1"	1"
1" – 2"	2"
2" – 3.5"	1 x 2" to 3.5"
3.5" – 6"	2 x 2" to 3.5"
6" – 10"	3 x 2" to 3.5"
>10"	Discretion of Commission to reach equivalent

- (5) Rationale for Removal - Describe why the interests of wetlands protection are advanced by the revegetation plan.
- (6) Maintenance Plan - Vegetation replacement is not considered successful until the replacement plants have survived three full growing seasons. The maintenance plan shall describe how the restoration will be evaluated annually for three years and reported to the

Commission. The Commission reserves the right to require a revised replanting plan, or plantings, in the event that the revegetation plants decay or die.

F. The Commission may require one or more of the following measures to protect vegetation during work:

- (1) Tree protection fencing – Prior to commencing work, four (4) foot-high snow fencing shall be installed and secured with wooden stakes (2" x 4" or 2" x 3") or 6-foot steel channel posts so as to create an enclosure at the dripline of tree(s) or other distance as the site conditions allow to be protected. Such fencing shall be securely erected, be vertically plumb and be maintained for the duration of the project and shall protect individual trees or groups of trees.
- (2) Tree protection blanket – "BarkSavers" or similar armored blankets shall be installed and maintained according to product specifications.
- (3) No existing trees shall be used for crane stay, guys or other fastening.
- (4) Vehicles shall not be parked below the canopy of any existing tree or where damage may result to existing trees.
- (5) Construction materials shall not be stored beneath existing trees.
- (6) Following completion of work, have a certified arborist monitor the health of trees on site for possible damage and take measures to repair damage.
- (7) Prior to work, preparation of a tree protection plan showing summary of all trees on site (including dbh, species, extent of canopy, roots and health) and specifying whether each tree shall be saved or lost.

G. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity.

Section 20 - Vernal Pool and 100-Foot No-Disturbance Zone

A. Findings.

- (1) Vernal Pools and their associated 100-foot No-Disturbance Zones are likely to be significant to the protection of wildlife habitat and rare plant and animal habitat. Vernal Pools constitute a unique and increasingly rare type of wetland that is inhabited by many species of wildlife, some of which are completely dependent on Vernal Pools and their associated habitat for their survival. Areas in the immediate vicinity of the Vernal Pool (i.e., 100-foot No-Disturbance Zone) provide these species with important non-breeding habitat functions, such as migratory pathways, feeding, shelter, and over-wintering sites. Many other species utilize Vernal Pools and their associated 100-foot No-Disturbance Zones for breeding and non-breeding functions, although such species are not limited to this type of wetland. The protection of Vernal Pools and their associated 100-foot No-Disturbance Zones are essential for the survival of wildlife species that depend on these unique and threatened resource areas. Vernal Pools need not be state certified in order to be protected under the Bylaw or these Regulations.
- (2) The extreme edges of vernal pool habitat represent one of the most ecologically valuable portions of these habitats. Shallow water at the edges of a pool is generally the first to thaw in the spring. This provides early access to the pool for the earliest breeding

species. The shallow water zones also tend to be significantly warmer than the deeper portions of a vernal pool throughout the spring. Egg masses of early breeding amphibians benefit from the warmer water temperatures at the pool edges that promote rapid egg development.

B. Definition, Critical Characteristics and Boundary.

(1) Vernal Pools exhibit a tremendous variation in physical, geographic, hydrologic and vegetative conditions, and therefore, for the purposes of these Regulations, these conditions are not considered reliable criteria for their identification. A Vernal Pool is a temporary freshwater body, which, in most years holds water for a minimum of two (2) months and is free of established, reproducing fish populations, and is protected by these Regulations if it meets any of the following criteria:

- (a) The Vernal Pool contains evidence of the presence of any one (1) of the following obligate indicator species: Spotted Salamander, Blue-Spotted Salamander, Jefferson Salamander, Marbled Salamander, Wood Frog or Fairy Shrimp, or;
- (b) In the absence of any obligate indicator species, the Vernal Pool contains evidence of two (2) of any of the following facultative indicator species: Spring Peeper, American Toad, Green Frog, Pickerel Frog, Gray Tree Frog, Four-Toed Salamander, Spotted Turtle, Caddisfly larvae or cases of Caddisfly larvae, Dragonfly or Damselfly larvae or shed skins (exuvia) of Dragonfly or Damselfly larvae, adults, juveniles or shells of either Fingernail Clams or Amphibious, air-breathing Snails.

(2) The boundary of vernal pool.

The boundary of vernal pool is the lower of:

- (a) the maximum elevation of a topographic depression that holds water for a minimum of two (2) continuous months each year; or
- (b) the maximum observed or recorded water level in a topographic depression.

The boundary of vernal pool may be defined differently for the purpose of state or federal protection. The boundary of vernal pool is not established when a certification number is issued by the Commonwealth.

C. Timing of Evidence Collection:

Many of the indicators of Vernal Pool habitat are seasonal. For example, certain salamander egg clusters are only found between late March and late May; wood Frog chorusing only occurs between late March and late May, and then only at night. Consequently, failure to find evidence of breeding must be tied explicitly to those periods during which the evidence is most likely to be available.

Accordingly, in the case of challenges to the presumption of Vernal Pool habitat the Commission may require that the determination be postponed until the appropriate time period consistent with the evidence being presented. The Commission may also require its own site visit(s) as necessary to confirm the evidence.

D. Presumptions of Significance for 100-foot No-Disturbance Zone:

Where a proposed activity involves the removing, filling, dredging, or altering of a Vernal Pool or its 100-foot No-Disturbance Zone, the Commission shall presume that the Vernal Pool and its 100-foot No-Disturbance Zone is significant to the protection of wildlife habitat and rare plant and animal habitat. This presumption may be rebutted by a showing of a preponderance of the credible evidence from a competent source that the Vernal Pool or its 100-foot No-Disturbance Zone does not play a role in the protection of said interests. In the event that the presumption is deemed by the Commission to have been overcome, the Commission shall make a written determination to this effect, setting forth its grounds.

E. Performance Standards for 100-foot No-Disturbance Zone:

When the presumption set forth in Section 21.D of these Regulations is not overcome, the following standards shall apply to Vernal Pools and their 100-foot No-Disturbance Zones:

- (1) 100-foot No-Disturbance Zone: No activity shall be permitted within 100 feet of the delineated edge of a Vernal Pool, or in the case of a wetland resource area that encompasses the pool, within 100 feet of the delineated edge of said wetland resource area. Prohibited activities include, but are not limited to, grading, landscaping, vegetation control, pruning, cutting, filling, excavation, roadway construction and/or driveway construction.
- (2) No-Disturbance Zone Demarcation: To maintain the perpetual integrity of the 100-foot No-Disturbance Zone and to ensure that there will be no encroachments into this Zone by the applicant or future owners of the subject property, the Commission may require the No-Disturbance Zone to be marked on the ground, at the applicant's expense, with permanent markers. These markers shall be made of weather resistant material (i.e. granite or concrete), and the Commission shall determine their number, location and size. The Commission may require the maintenance of such markers in any certificate of compliance issued for the project.

Section 21 - Riverfront Area

See 310 CMR 10.58 (the Massachusetts Department of Environmental Protection's Wetlands Regulations pertaining to Riverfront Area).

Section 22 - Areas of Critical Environmental Concern

A. Any areas within the Town of Arlington which have been designated as Areas of Critical Environmental Concern by the Secretary of Environmental Affairs, Commonwealth of Massachusetts, are so designated due to the particularly unique environmental factors which impact upon such areas, and which highlight the unique importance of each area so designated.

B. As a result of such designation, it is incumbent upon the Commission to be even more diligent in its review of projects proposed within such areas. The highest standards of scrutiny as to the impact of any proposal are required shall be exercised by the Commission.

C. Further, it is herewith set forth relative to any and all proposed projects within such areas, that close scrutiny shall be given by the Commission to any proposals involving an application of

new pavement or newly installed other impervious materials within any area less than 100 feet from bordering vegetated wetland, bank, beach, and meadow, and that the Commission will be diligent in its review of such application.

Section 23 - Stormwater Management

A. Work or activity specified in a request for determination of applicability or an application for a permit and subject to the Bylaw shall meet, at a minimum and to the extent practicable, the best management practices for stormwater management as set forth in the Stormwater Policy of the Massachusetts Department of Environmental Protection.

B. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity

Section 24 - Filing Fees

A. Rules:

- (1) Permit fees are payable at the time of application and are nonrefundable.
- (2) Permit fees shall be calculated by the Conservation Commission per the Bylaw.
- (5) Town, county, state and federal projects are exempt from fees.

B. NOTE: These filing fees are in addition to the filing fees charged under M.G.L. c. 131, Section 40, the Wetlands Protection Act.

C. The requirements of this section shall be commensurate with the nature, scope, type, and cost of the proposed project or activity.

Section 25 - Plan Requirements

A. Plans shall describe the proposed activity and its effect on the environment. Due regard shall be shown for all natural features such as large trees, watercourses and water bodies, wildlife habitat and similar community assets.

- (1) The following items are set out as a minimum standard. The applicant may submit, or be required to submit, any further information which will assist in the review and which is deemed necessary to determine the proposed effect on the interests protected by the Bylaw. The Conservation Commission may waive any of these plan requirements it deems insignificant or irrelevant for a particular project.
- (2) The applicant must submit the original material to the Conservation Commission, plus seven copies of the following:
 - (a) Complete and signed permit application.
 - (b) An eight-and-five-tenths-inch-by-eleven-inch reproduction of the USGS quadrangle sheet showing the project locus, and in the case where the project requires two or more plans to show the locus, an eight-and-five-tenths-inch-by-eleven-inch sheet

clearly identifying the proposed site and work in addition to the labeled boundaries of the resource areas.

B. General.

- (1) The following information shall be provided:
 - (a) The names and addresses of the record owner(s), the applicant(s) and of all abutters, as determined by the most recent local tax list, unless the applicant shall have a more recent knowledge of such abutters.
 - (b) Description of any alteration to flood storage capacity on the site. Include calculations and watershed maps if necessary.
 - (c) Maximum and minimum groundwater elevations. The calendar dates of measurements, samplings and percolation tests shall be included.
 - (d) Soil characteristics in representative portions of the site.
 - (e) A runoff plan and calculations using the Rational Method (small areas) or “the Cornell” method, *or the Modified Soil Cover Complex Method (areas greater than 20 acres)* and based on the ten-year, fifty-year and one-hundred-year-flood frequency event period. Calculations shall show existing and proposed runoff conditions for comparative purposes.
 - (f) Methods to be used to stabilize and maintain any embankments facing any wetlands, or show slope on plans of less than or equal to 3 to 1.
 - (g) Methods to control erosion during and after construction.

C. Plans.

- (1) All drawings shall be drawn (one inch equals 40 feet maximum) with the title designating the name of the project, location, the name(s) of the person(s) preparing the drawings and the date prepared, including all revision dates. Drawings, whenever possible, should be stamped and signed by a registered professional engineer or a registered land surveyor of the Commonwealth of Massachusetts.
- (2) Drawings must include a delineation of all wetlands, both permanent and seasonal, natural and man-made, and should be clearly delineated as indicated below, regardless of whether or not the applicant believes the work is subject to M.G.L. c. 131, Section 40, the Wetlands Protection Act or the Arlington Wetlands Bylaw:
 - (a) Open or flowing water;
 - (b) Marsh or swamp;
 - (c) All meadows, flats and other land subject to flooding.
- (3) Alterations.
 - (a) Drawing must include a delineation of all alterations proposed in or adjacent to wetlands and floodplains as indicated below:
 - i. Areas to be dredged;
 - ii. Areas to be filled;
 - iii. Areas to be altered in any way, other than dredging or filling;
 - (b) All alterations should be clearly explained in text or footnotes.
- (4) All drawings should delineate the fifty-foot buffer and the one-hundred-foot buffer.

- (5) Calendar dates of measurements, samplings, contours and so forth should appear with such data. Datum shall be stated in NGVD base. The contour interval shall be no greater than two feet.
- (6) Indicate existing and final contours and contour interval used, including pond bottom and stream invert contours.
- (7) Indicate locations and elevations of sills and bottom of foundation(s) and septic system(s) (if any).
- (8) Indicate soil characteristics in representative parts of property, including depth of peat and muck in wetlands.
- (9) Indicate locations, sizes and slopes of existing and proposed culverts and pipes.
- (10) Include cross-section of all wetlands, showing slopes, bank and bottom treatments.
- (11) Include existing and proposed water storage capacity of the property, including calculations and data on which the capacity is based. If filling is proposed, determine the effect of loss of storage on downstream channels and culverts.
- (12) Indicate location and elevation of bench mark used for survey.
- (13) Indicate existing trees, stone walls, fences, buildings, historic sites, rock ridges and outcroppings.
- (14) Indicate invert elevations on catch basins.
- (15) Indicate proposed on-site pollution control devices, such as hooded catch basins, oil absorption pillows, detention/retention basins, flow dissipators or vegetative buffers.
- (16) Show locations/details of erosion control devices.
- (17) Assessors Map and Lot number(s) shall be shown.
- (18) If location is within an Area of Critical Environmental Concern, it shall be so indicated on the plan

D. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity

Section 26 - Area to be staked prior to site inspection

A. Before site inspections can be made by the Conservation Commission or the Commission's agent, the following conditions must be met:

- (1) Stakes shall be provided as follows:
 - (a) Stakes indicating the corners of houses or other structures nearest the wetland resource area.
 - (b) Stakes indicating the septic tank and the leaching field location.
 - (c) Stakes indicating the limit of work.
- (2) Lot number or house number should be posted at location.
- (3) Edges of all resource areas shall be delineated. (Please refer to rules and regulations for definitions.)
- (4) Directions shall be made available to the Commission to locate property.

B. Failure to have the lot staked may result in nonreview and thus costly delay of a project.

C. Upon completion of staking, the Conservation Commission shall be notified and a site inspection shall be arranged prior to the scheduled public hearing.

D. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity.

[Editor's notes: Regulations first approved January 4, 2001; revised June 2001; revised September 20, 2001, April 17, 2005]